**Unit 3: Atomic & Periodic Table Review** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Remember that you will be allowed to use THIS REVIEW on the test, so bring it with you, COMPLETED!

1. List 2 properties of a metal:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List 2 properties of a nonmetal:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What accounts for the majority of the periodic table, metals, metalloids, or nonmetals?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What are the two elements on the periodic table that are liquids at room temperature? \_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_
2. Is the majority of the periodic table made up of solids or gases at room temperature? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. List one metalloid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. What is a metalloid? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List what group number(s) each of the following families are a part of:

Halogens \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transition metals \_\_\_\_\_\_\_\_\_\_\_

Alkali metals \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Alkaline earth metals \_\_\_\_\_\_\_\_

Nobel gases \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Fill in the missing information on the label using your periodic table:

|  |  |  |
| --- | --- | --- |
| Period # | Group # | Element |
| 4 | 3 |  |
| 6 | 6 |  |
| 4 | 1 |  |
|  |  | Xe |
|  |  | P |

1. Elements in the same period on the periodic table have the same number of

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Elements in the same group on the periodic table have the similar

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List one element that is chemically similar to S. \_\_\_\_\_\_\_

Explain why you picked that element \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Transition metals tend to make \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Who was credited for “inventing” the periodic table?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What element always has 45 protons? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Provide the correct term for each of the statements:

|  |  |
| --- | --- |
| Statement | Term |
| These are vertical columns on the periodic table |  |
| This represents the number of protons and neutrons |  |
| This is the group of metals that is so reactive that they are never found alone in nature |  |
| These have properties of both metals and nonmetals |  |
| This is what we call groups 3 – 12 on the periodic table |  |
| These are a negative subatomic particle |  |
| The periodic table is arranged by |  |
| The atomic number is always equal to this |  |
| These electrons are used in bonding |  |
| When the number of protons and electrons is not equal it is not called an atom, it’s called this |  |

1. Complete the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| Element Symbol | # Protons | # Neutrons | # Electrons |
|  | 83 | 126 | 83 |
| 137Ba+2 |  |  |  |
| 79Se-2 |  |  |  |
| Tc |  |  |  |
| 31P-3 |  |  |  |

1. What does an elements mass number tell you? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The periodic table is arranged by increasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the most reactive nonmetal on the periodic table? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the most reactive metal on the periodic table? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. List one property of the noble gases. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22.) Be able to describe one thing you learned about the element that you made your

poster about. This must be information that you cannot gain from looking at the

periodic table, or something that we went over in class.

23.) What type of bonding is present in the following, ionic or covalent?

CaCl2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

K2O \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NaF \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CH4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circle which substances above have high melting points. Put a star next to the substances that will not conduct electricity when dissolved in water